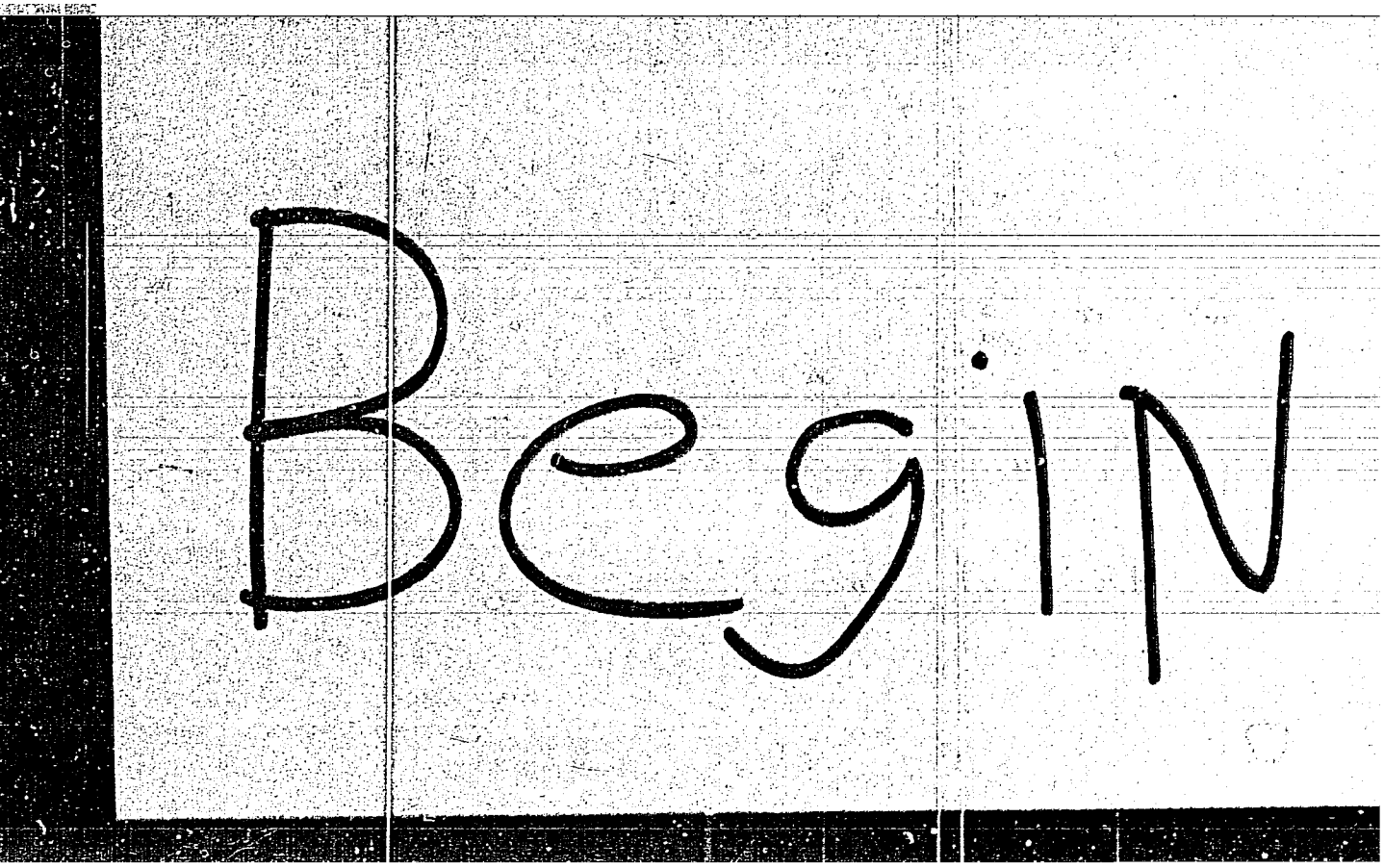

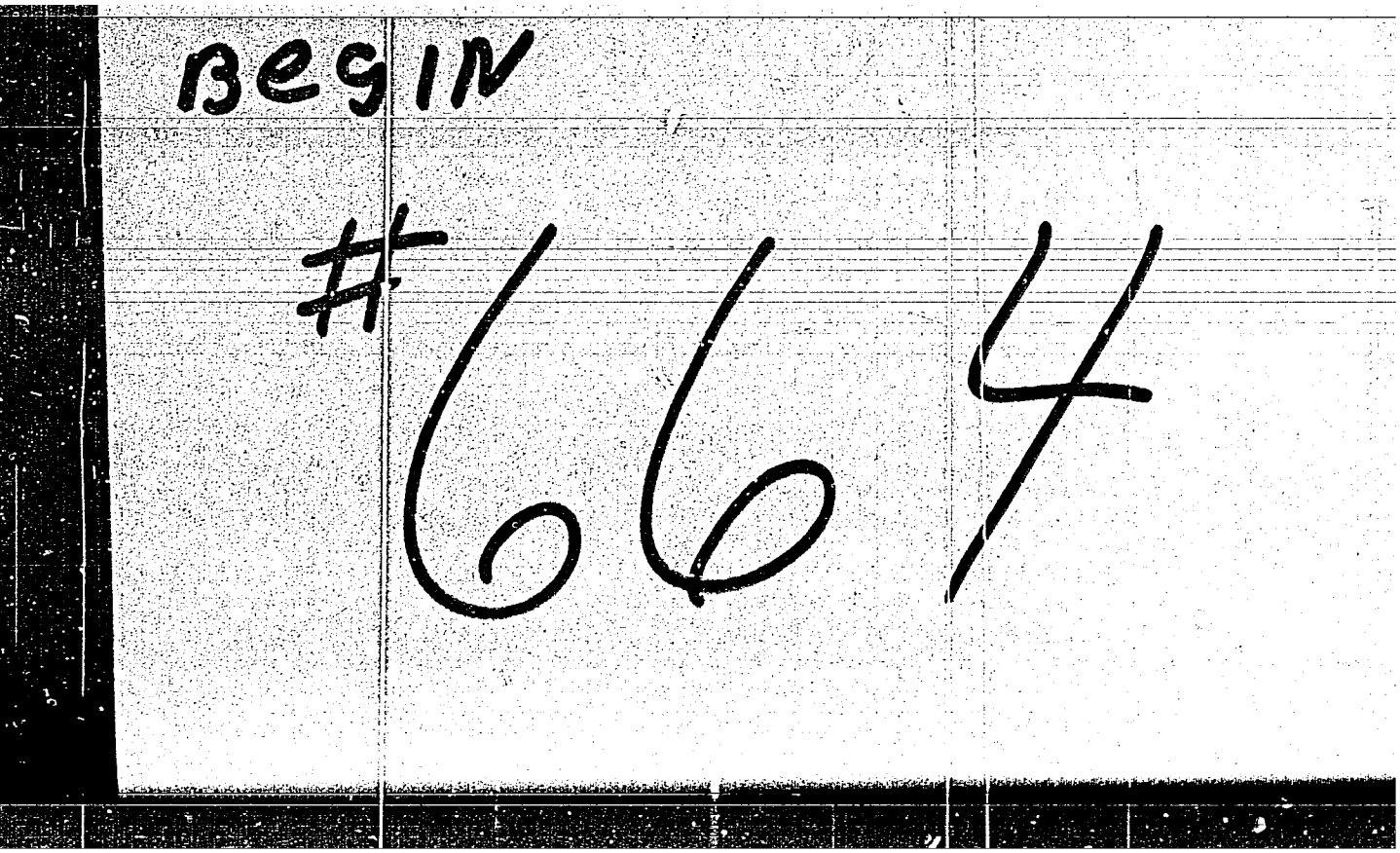

VORONOVA, P.N.

Dynamics of the basic sanitary and demographic indices for Perm Province. Zdrav.Ros.Feder. 6 no.9:10-13 S '62. (MIRA 15:10)

1. Iz kafedry organizatsii zdravookhraneniya II Moskovskogo meditsinskogo instituta imeni N.I.Pirogova.
(PERM PROVINCE—DEMOGRAPHY)

VORONOVA, R.

Breading machine. Okhr.truda i sots.strakh. 4 no.12:27 D '61.
(MIRA 14:11)

1. Otvetstvennyy sekretar' mnogotirazhnoy gazety "Rybnik".
(Restaurants, lunchrooms, etc.--Equipment)

VORONOVA, N.A.

VORONOVA, N.A.

Differentiation of space signals by children with musculoskeletal lesions. Uch.zap.Len.un. no.185:92-100 '54. (MLRA 8:10)
(Movement disorders) (Space perception)

KHRUSHCHEV, G.G., kand. tekhn. nauk; Prinimali uchastiye: YADROVA, G.I., inzh.; STEPANOV, I.T., konstruktor; AFANAS'YEV, V.K., inzh.; DODONOVA, V.I., laborant; VORONOVA, R.G., laborant

Method of combined spinning, slubbing, and twisting in woolen manufacture. Nauch.-issl. trudy TSNIISherstI no.17:29-38 '62. (MIRA 17:12)

MUROMTSEV, A.M.; ARKHIPOVA, Ye.G.; MAKEROV, Yu.V.; KHARITONOV, D.G.; DOBROVOL'SKAYA, L.N.; POTAYCHUK, M.S.; VORONOVA, S.P.; BELOV, V.P.; RZHEPLINSKIY, G.V., nauchn. red.; ROSHCHINA, V.V., red.; ZARKH, I.M., tekhn. red.

[Basic characteristics of the hydrology of the Atlantic Ocean] Osnovnye cherty gidrologii Atlanticheskogo Okeana. Pod red. A.M.Muromtseva. Moskva, Gidrometeoizdat, 1963. 835 p. ___[Atlas of vertical cross s ctions and maps of temperature, salinity, density and oxygen composition] Prilozhenie no.2. Atlas vertikal'nykh razrezov i kart temperatury, solenosti, plotnosti i soderzhaniia kisloroda. 182 p. (MIRA 17:3)

1. Moscow. Gosudarstvennyy okeanograficheskiy institut.

VORONOVA, S. A.

24455 VORONOVA, S. A. Otdalennyye posledstviya zakrytykh travm cherepa. (Kliniko-stat. analiz. postkontuzionnykh sostoyaniy). Trudy Glav. voyen. Gospitalya Vooruzh. Sil SSSR im. Akad. Burdenko. VIP. 6. M., 1949, S. 342-52. Bibliogr: 5 nazv.

SO: Letopis, No. 32, 1949.

ACCESSION NR: AP4040669 S/0075/64/019/006/0705/0708

AUTHOR: Yatsimirskiy, K. B.; Morozova, R. P.; Voronova, T. A.; Gershkovich, R. M.

TITLE: Quantitative determination of tantalum by its catalytic action on the oxidation of thiosulfate by hydrogen peroxide.

SOURCE: Zhurnal analiticheskoy khimii, v. 19, no. 6, 1964, 705-708

TOPIC TAGS: tantalum, quantitative determination, thiosulfate oxidation, catalysed thiosulfate oxidation, kinetic analysis, phototurbidimetric determination, catalysed oxidation

ABSTRACT: A new kinetic method is suggested for the quantitative determination of Ta (V), based on the catalysis of the reaction between thiosulfate and hydrogen peroxide:

$$4H_2O_2 + S_2O_3^{2-} \rightarrow 2SO_4^{2-} + 2H^+ + 3H_2O. \quad (1)$$

Since the rate of sulfate formation is proportional to the catalyst concentration, and since the optical density of $BaSO_4$ is directly proportional to the sulfate ion

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ACCESSION NR: AP4040669

concentration, phototurbidimetric determination in the changes of the optical density of $BaSO_4$ will indicate the rate of the indicated reaction. A linear relationship was found between catalyst concentration (i.e., sulfate formation) and length of the induction period (time from mixing of the reagents to moment optical density = 0.05). The relationships between induction period and peroxide and thiosulfate concentrations were also established (figs. 1, 2). It is suggested that concentrations of these corresponding to the middle portions of these curves be used. W, Ti, V and Th ions, which themselves catalyse the above reaction, and fluoride ions which form strong complexes with the catalyst affect the determination. Orig. art. has: 2 tables, 3 figures and 2 equations.

ASSOCIATION: Ivanovskiy khimico-tekhnologicheskiy institut (Ivanov Chemical Technological Institute)

SUBMITTED: 08Jul63 ENCL: 01

SUB CODE: IC NO REF SOV: 005 OTHER: 000

Card 2/3

VORONOVA, T.G., kand. sel'skokhoz. nauk

Growth rhythm of fruit crop roots in relation to the development of their aerial parts. Agrobiologiia no.2:291-293 Mr-Ap '65. (MIRA 18:11)

1. Sakhalinskaya oblast', Anivskiy rayon, poselok Pyatirech'ye.

VORONOVA, T.G.

Effect of pollinizer variety on the setting and size of apples in Sakhalin Province. Agrobiologiia no.2:234-237 Mr-Ap '62. (MIRA 15:4)

1. Kholmskoye opytnoye pole plodovoyagodnykh kul'tur, Sakhalinskaya oblast'.

(Sakhalin--Apple breeding)

VORONOVA, T.G., kand.sel'skokhoz.nauk

Goumi. Priroda 50 no.11:107-108 N '61. (MIRA 14:10)

1. Kholmskoye opytnoye pole plodovo-yagodnykh kul'tur, Sakhalinskaya obl.
(Sakhalin—Goumi)

VORONOVA, V. F.

VORONOVA, V. F.- "Qualitative Investigation of the Position of Integral Curves of the Equation

$$y^1 = \frac{A_3(x,y) + f(x,y)}{B_3(x,y) + q(x,y)}$$

in the Vicinity of a Particular Point." Min Education RSFSR. Moscow Oblast Pedagogical Inst. Moscow, 1955. (Dissertation for the Degree of Candidate of Physicomathematical Sciences)

So; Knizhnaya Letopis', No 3, 1956

VOLKONOVA, Vera Petrovna; MOZHAROV, Nikolay Alekseyevich; DAYEV, A.K., dots., red.

[Thermal analysis of a boiler unit; manual for a course project] Teplovoi raschet kotloagregata; posobie po kursovomu proektirovaniiu. Moskva, energeticheskii in-t, 1961. 87 p. (MIRA 17:3)

VORONOVA, V. P.

VORONOVA, V. P. -- "Investigation of the Method for Obtaining and the Analysis of Concentrated Samples of Condensate of Steam." Sub 30 Dec 52, Moscow Order of Lenin Power Engineering Inst imeni V. M. Molotov. (Dissertation for the Degree of Candidate in Technical Sciences.)

SO: VECHERNAYA MOSKVA, January-December 1952

VOLOKOVA, V.S.

Natural regenaration under the canopy of spruce woods. Trudy Kar.fil. AN SSSR no.16:30-37 '59. (MIRA 13:4)
(Spruce) (Reforestation)

VORONOVA, V.S.

Appearance of conifer shoots on cut-over areas with different types of vegetation. Izv.Kar.i Kol.fil.AN SSSR no.[illegible]:97-102 '58. (MIRA 12:9)

1. Institut lesa Karel'skogo filiala AN SSSR.
(Coniferae)

YAKOVLEV, F.S.; VORONOVA, V.S.; VILIKAYNEN, M.I., kand. biol. nauk, nacunyy red.; PANKRASHOV, A.P., red.; POD"EL'SKAYA, K.M., tekhn. red.

[Forest types in Karelia and their natural zoning] Tipy lesov Karelii i ikh prirodnoe raionirovanie. Petrozavodsk, Gos. izd-vo Karel'skoi ASSR, 1959. 189 p. (MIRA 15:4)
(Karelia--Forests and forestry)

VORONOVA, V. S.

Dissertation defended in the Botanical Institute imeni V. L. Komarov for the academic degree of Candidate of Biological Sciences:

"Types of Spruce Forest and Felling of Karelia."

Vestnik Akad Nauk No. 4, 1963, pp. 119-145

VORONOVA, V.S.; LISENKOV, A.F.

Work of the Karelian Branch of the Academy of Sciences of the U.S.S.R. on forestry and the lumber industry. Izv. Kar. i Kol' fil. AN SSSR no. 1:20-25 '57. (MIRA 11:7)

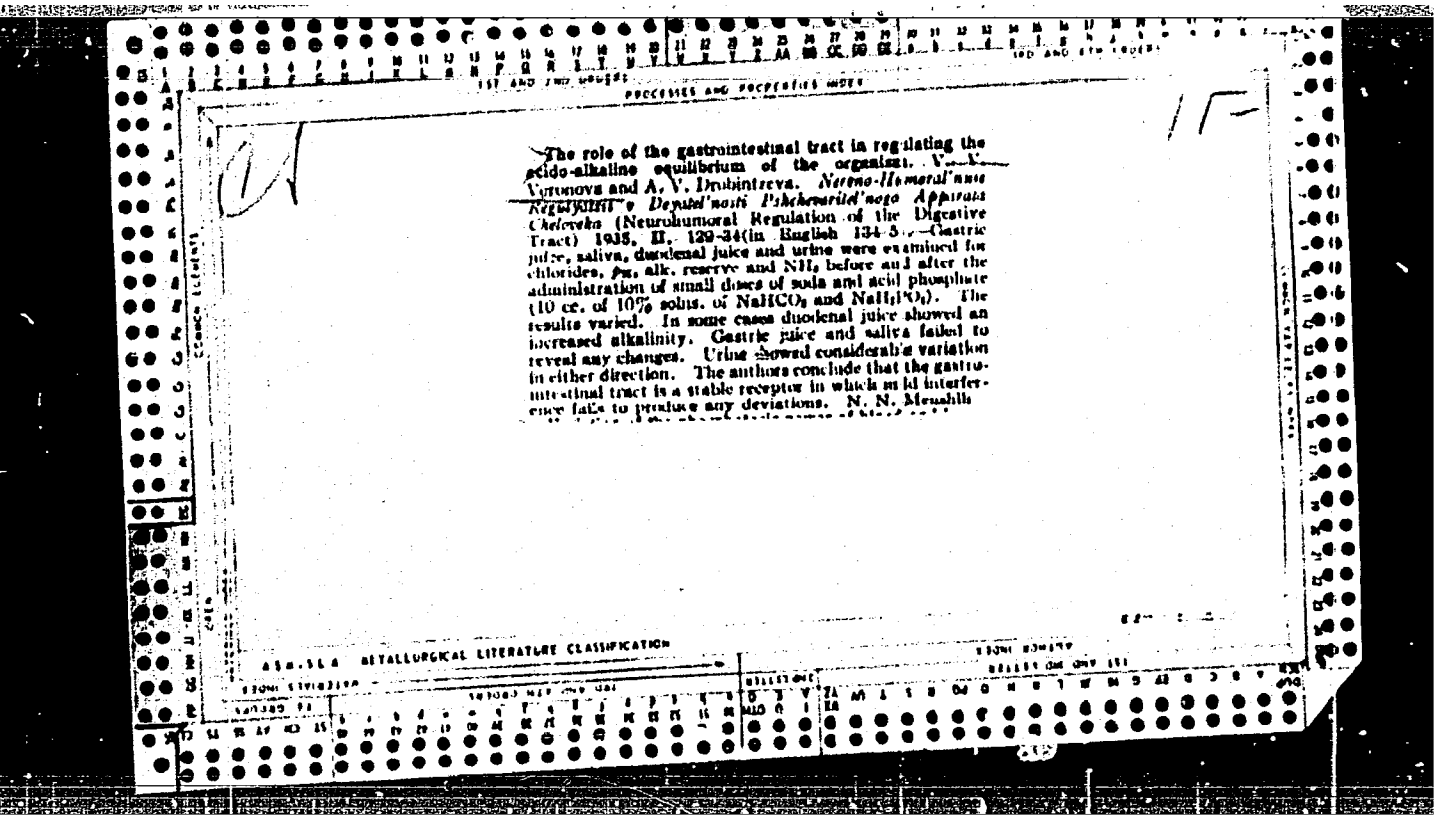
1. Institut lesa Karel'skogo filiala AN SSSR.
(Karelia--Forestry research)

VORONOVA, V.S.

Effect of plant succession on natural regeneration in clearcuttings. Trudy Kar. fil. AN SSSR no.7:110-126 '57. (MLRA 10:9)
(Karelia--Forest ecology) (Reforestation)

IONIN, Aleksandr Aleksandrovich, kand. tekhn. nauk; NOVIKOVA, M.M., ved. red.; VORONOVA, V.V., tekhn. red.

[Fundamentals for the design of jet gas burners] Osnovy rascheta ezhektsionnykh gazovykh gorelok. Moskva, Gostoptekhizdat, 1963. 151 p. (MIRA 16:10)
(Gas burners)



The role of the gastrointestinal tract in regulating the acido-alkaline equilibrium of the organism. V. V. Voronova and A. V. Drobintseva. *Nervno-Humoral'naia Regulyatsiia Deyatel'nosti Pishchevarital'nogo Apparata Cheloveka* (Neurohumoral Regulation of the Digestive Tract) 1935, II, 129-34(in English 134-5).—Gastric juice, saliva, duodenal juice and urine were examined for chlorides, p_H, alk. reserve and NH_3 before and after the administration of small doses of soda and acid phosphate (10 cc. of 10% solns. of $NaHCO_3$ and NaH_2PO_4). The results varied. In some cases duodenal juice showed an increased alkalinity. Gastric juice and saliva failed to reveal any changes. Urine showed considerable variation in either direction. The authors conclude that the gastrointestinal tract is a stable receptor in which mild interference fails to produce any deviations. N. N. Mesnikh

CA

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

11E

The role of the gastrointestinal tract in regulating the
acid-alkaline equilibrium of the organism. V. V.
Voronova and A. V. Drobintzeva. *Nervno-Humoral'naia*
Regulyatsii v Deyatel'nosti Pishchevaritel'nogo Apparata
Cheloveka (Neurohumoral Regulation of the Digestive
Tract) 1935, II, 129-34(in English 134-5).—Gastric
juice, saliva, duodenal juice and urine were examined for
chlorides, pH, alk. reserve and NH$_3$ before and after the
administration of small doses of soda and acid phosphate
(10 cc. of 10% solns. of $NaHCO_3$ and NaH_2PO_4). The
results varied. In some cases duodenal juice showed an
increased alkalinity. Gastric juice and saliva failed to
reveal any changes. Urine showed considerable variation
in either direction. The authors conclude that the gastro-
intestinal tract is a stable receptor in which mild interfer-
ence fails to produce any deviations. N. N. Menshih

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

PEYZULAYEV, SH.I.; KARABASH, A.G.; KRAUZ, L.S.; KOSTAREVA, F.A.; SMIRNOVA-AVERINA, N.I.; BABINA, F.L.; KONDRAT'YEVA, L.I.; VORONOVA, Ye.F.; MESHKOVA, V.M.

Spectral method for the determination of trace impurities. Zav. lab. 24 no. 6:723-731 '58. (MIRA 11:7)
(Spectrum analysis)

Voronova, Ye. F.

24(7) PHASE I BOOK EXPLOITATION SOV/1700

Lvov. Universitet

Materialy X Vsesoyuznogo soveshchaniya po spektroskopii. 1956. t. II: Atomnaya spektroskopiya (Materials of the 10th All-Union Conference on Spectroscopy, 1956. Vol 2: Atomic Spectroscopy) [Lvov] Izd-vo L'vovskogo univ., 1958. 568 p. (Series: Its: Fizicheskiy sbornik, vyp. 4(9)) 3,000 copies printed.

Additional Sponsoring Agency: Akademiya nauk SSSR. Komissiya po spektroskopii.

Editorial Board: G.S. Landsberg, Academician, (Resp. Ed.); B.S. Neporent, Doctor of Physical and Mathematical Sciences; I.L. Fabelinskiy, Doctor of Physical and Mathematical Sciences; V.A. Fabrikant, Doctor of Physical and Mathematical Sciences; V.G. Koritskiy, Candidate of Technical Sciences; S.M. Rayskiy, Candidate of Physical and Technical Sciences; L.K. Klimovskaya, Candidate of Physical and Mathematical Sciences; V.S. Miliyanchuk (Deceased), Doctor of Physical and Mathematical Sciences; A.Ye. Glauberman, Doctor of Physical and Mathematical Sciences; Ed.: S.L. Gazer; Tech. Ed.: T.V. Saranyuk.

PURPOSE: This book is intended for scientists and researchers in the field of spectroscopy, as well as for technical personnel using spectrum analysis in various industries.

COVERAGE: This volume contains 177 scientific and technical studies of atomic spectrography presented at the 10th All-Union Conference on Spectroscopy in 1956. The studies were carried out by members of scientific and technical institutes and include extensive bibliographies of Soviet and other sources. The studies cover many phases of spectroscopy: spectra of rare earths, electromagnetic radiation, physicochemical methods for controlling uranium production, physics and technology of gas discharge, optics and spectroscopy, abnormal dispersion in metal vapors, spectroscopy and the combustion theory, spectrum analysis of ores and minerals, photographic methods for quantitative spectrum analysis of metals and alloys, spectral determination of the hydrogen content of metals by means of isotopes, tables, and atlases of spectral lines, spark spectrographic analysis, statistical study of variation in the parameters of calibration curves, determination of traces of metals, spectrum analysis in metallurgy, thermochemistry in metallurgy, and principles and practice of spectrochemical analysis.

Card 2/31

Materials of the 10th All-Union Conference (Cont.) SOV/1700

Karabash, A.G., Sh.I. Peyzulayev, R.L. Slyusareva, N.P. Sotnikova, N.I. Smirnova-Averina, Z.N. Samsonova, L.S. Kraus, G.G. Morozova, L.S. Romanovich, L.I. Smirenkina, V.M. Lipatova, S.K. Kazanova, L.I. Pogacheva, V.F. Nasobeva, Ye.F. Voronova, P.D. Gorbachev, F.A. Kostareva, E.T. Kostereva, A.I. Yeloratskaya, and N.N. Kuznetsova. Methods of Spectrochemical Analysis of Pure Metal for Impurities 556

AVAILABLE: Library of Congress

TM/dfh
7-7-59

Card 31/31

VORONOVA, YE. G.

Defended his Dissertation for Candidate of Technical Sciences in the Moscow Chemicotechnological Institute, Moscow, 1953

Dissertation: "Application of Dilatometry to the Study of Polymorphism in Fats and for the Appraisal of Their Properties in Industrial Production"

SO: Referativnyy Zhurnal Khimiya, No. 1, Oct. 1953, (W/29055, 26 Apr 54)

SKRYNNIKOVA, G.N.; MATVEYEVA, N.I.; SMETANIN, L.L.; VORONOVA, Ye.I.

Testing the new design of a high-frequency titrimeter. Trudy VNIIT no.13:213-218 '64. (MIRA 18:2)

GOVOROVA, L.M.; SKRYNNIKOVA, G.N.; VORONOVA, Ye.I.

Using 30% hydrochloric acid for the colorimetric determination of phenols with vanillin in the tar waters of shale-refining combines. Trudy VNIIT no.13:227-231 '64.

(MIRA 18:2)

VORONOVA, Ye. P., Cand Agr Sci -- (diss) "Soils of flood-plains in the Podgorenskiy rayon of the Voronezh oblast, their genesis, composition, properties, and basic approaches of agricultural utilization and employment." Voronezh, 1960. 24 pp; (Ministry of Agriculture RSFSR, Voronezh Agricultural Inst); 150 copies; price not given; (KL, 27-60, 156)

VORONOVA, Ye.P.

Soil formation processes and classification of alluvial soils in the steppe zone of the Central Black Earth Region. Pochvovedenie no.7:43-52 '60. (MIRA 13:7)

1. Vserossiyskiy nauchno-issledovatel'skiy institut sakharnoy svekly i sakhara.
(Central Black Earth Region--Alluvial lands)
(Soil formation)

USSR/Soil Science - Genesis and Geography of Soils. J

Abs Jour : Ref Zhur Biol., No 22, 1958, 99986

Author : Voronova, Ye.P.

Inst : Voronezh Agricultural Institute

Title : Soils of the Botton Lands of the Ribers Dry Rossosh' and Popov's Ravine

Orig Pub : Zap. Voronezhsk. s.-kh. in-ta, 1957, 27, No 2, 335-338

Abstract : The botton lands of the rivers Dry Rossosh' and Popov's Ravine in the territory of Voronezhskaya Oblast' are situated in deep trough-shaped valleys surrounded by high watersheds, which had been put together by limestones. Along the entire extension of the valleys there are no clearly expressed river beds and permanent water currents. Here are distributed water-meadow, muddy-marshy, sod-meadow and sod-gleyey soils. Some

Card 1/2

L 31189-66 EWT(1)/T JK

ACC NR: AP6022596 SOURCE CODE: UR/0016/66/000/003/0134/0138

43
B

AUTHOR: Voronova, Z. A.

ORG: Institute of Epidemiology and Microbiology im. Gamaleya, AMN SSSR (Institut epidemiologii i mikrobiologii AMN SSSR)

TITLE: Order in which gamma-1 and gamma-2 antibodies are formed after the first and subsequent actions of antigen. I. Antibody distribution in serum protein fractions after the first and subsequent inoculations of rabbits with Rickettsia prowazekii

SOURCE: Zhurnal mikrobiologii, epidemiologii i immunobiologii, no. 3, 1966, 134-138

TOPIC TAGS: rabbit, antibody, antigen, protein, blood serum, gamma globulin, immunology, electrophoresis, rickettsial disease

ABSTRACT: The earliest antibodies were determined in rabbits 7-21 days after initial infection with R. prowazekii mainly in the Gamma-1-globulins, then in the Gamma-2-globulins. Antibodies in the sera of convalescent and reinfected animals were found almost exclusively in the gamma-2-fraction. The maximum hemagglutinin titer was observed in the gamma-1-fraction; the lowest complement-fixing antibody titer, in the gamma-2-fraction. Agglutinins to Proteus OX_{19} after the initial inoculations were generally found only in the gamma-1-globulins, but could not be determined at all after the second inoculation. The author concludes that the method of immunoelectrophoresis with soluble antigen from R. prowazekii is valuable in serological diagnosis of the primary and secondary immunological responses. Orig. art. has: 2 figures.

[JPRS]

SUB CODE: 06 / SUBM DATE: 19Mar65 / ORIG REF: 003 / OTH REF: 009

Card 1/1 UDC: 616.981.711-022.1-022.9-07:616.153.96-097.5-074

0613

VORONOVA, Z.A.

Preparation of type-specific precipitating sera for the diagnosis of Clostridium perfringens. Zhur. mikrobiol. epid. i immun. 40 no.5:126-128 My '63. (MIRA 17:6)

SHEVELEV, V.M.; VORONOVA, Z.A.; REZEPOV, F.F.

Antigenic specificity of Clostridium botulinum types, C, D, E.
Zhur. mikrobiol., epid. i immun. 41 no.3:65-69 Mr '64.
(MIRA 17:11)

VORONOVA, Z.A.

Determination of the antigenic properties of botulism toxins and anatoxins types A and B with the aid of the ring precipitation reaction. Zhur. mikrobiol. epid. i immun. 31 no. 4:94-99 Ap '60. (MIRA 13:10)

(TOXINS AND ANTITOXINS) (BOTULISM)

VOROB'YEV, A.A.; VASIL'YEV, N.N.; SHEVELEV, V.M.; VORONOVA, Z.A.; PETROVA, Ye.K.; BAZHENOVA, G.A.; ANDROSHCHUK, S.M.

Study of botulin anatoxins. Report No.6: Type D botulin anatoxin. Zhur. mikrobiol., epid. i immun. 40 no.9:87-92 S'63. (MIRA 17:5)

ACCESSION NR: AP4025078 S/0016/64/000/003/0065/0069

AUTHOR: Shevelev, V. M.; Voronova, Z. A.; Rezepov, F. F.

TITLE: Antigen specificity of Cl. botulinum types C, D, and E

SOURCE: Zhurnal mikrobiologii, epidemiologii i immunobiologii, no. 3, 1964, 65-69

TOPIC TAGS: botulism, Cl. botulinum types C, D, and E, botulinus toxin, botulinus heterogeneous toxin, antigen specificity, antigen affinity, neutralization reaction, precipitinogen

ABSTRACT: The degree of antigen affinity between Cl. botulinum types C, D, and E was determined by neutralization reaction of their toxins, passive and active immunization, and precipitation reaction with bacterial antigens. For neutralization reactions, antibotulinus serums types C, D, and E were mixed with various quantities of homo- and heterogeneous toxins, kept at room temperature for an hour, and then were injected intravenously into white mice. Death rate and clinical symptoms during the following four days served as indices. For passive immunization antitoxin serums types C, D, and E were injected intravenously into white mice and an hour later homo- and

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ACCESSION NR: AP4025078

heterogeneous toxins were injected intraperitoneally. To find possible cross immunity, actively immunized animals received single subcutaneous immunization with concentrated botulinus antitoxins types C, D, and E sorbed in aluminum oxide hydrate and immunity strength was tested. For cross precipitation reactions, boiled extracts of microbe cells common to 8 strains of Cl. botulinum C, D, and E were used as antigens. Findings show that botulinus toxins types C, D, and E have a certain antigenic affinity. Large doses of antitoxin for a given type are capable of neutralizing small doses of heterogeneous toxin. Active or passive immunization against botulinus toxins C, D, and E produces insignificant resistance to other type toxins. Cl. botulinum type D strains contain bacterial antigens (precipitinogens) common to antigens found in C and E type strains. Antigen specificity of Cl. botulinum types C, D, and E is confirmed by these data with only an insignificant affinity found between types C, D, and E. Orig. art. has: 4 tables.

ASSOCIATION: None

SUBMITTED: 18Jan62 ENCL: 00

SUB CODE: LS NR REF SOV: 001 OTHER: 004

Card 2/2

SOV/16-60-4-23/47

17 (2,12)

AUTHOR: Voronova, Z.A.

TITLE: Determining the Antigenic Properties of Types A and B Botulinum Toxins and Toxoids by the Ring Precipitation Test

PERIODICAL: Zhurnal mikrobiologii, epidemiologii i immunobiologii, 1960, Nr 4, pp 94 - 99 (USSR)

ABSTRACT: The aim of the work was to find a method of preparing sera which could be used in the ring precipitation test with crude or concentrated botulinum toxoids. Sera were obtained by immunizing rabbits with young bacterial cells of a heterologous strain of Clostridium botulinum types A and B. These sera could be used in the ring test for rapid determination (within 1 hr)of the antigenic properties of types A and B Cl. botulinum toxins and toxoids. Parallel tests were made of 240 batches of crude and 76 batches of concentrated type A and B Cl. botulinum toxoids by the ring test and by the Becker-Krauss-Löwenstein method. Full coincidence of the results from the two tests was obtained for 88 and 82% of the batches respectively. With tne other batches the divergence in the results amounted to 6 - 10%. The ring precipitation test accurately reflects the antigenic properties of Cl. botulinum toxins and

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Determining the Antigenic Properties of Types A and B Botulinum Toxins and Toxoids by the Ring Precipitation Test

may be used as a method of selecting them for the preparation of toxoids. The degree of toxicity of the A and B toxins, determined by titration on white mice, is not always sufficient for an appraisal of their antigenic properties, especially where the toxin has been activated by pancreatin and calcium chloride. The ring test is therefore recommended as a substitute for titration on white mice. There are 5 tables, 1 graph and 5 Soviet references.

SUBMITTED: December 9, 1958

VORONOVICH, Andrey Arkhipovich; BACHILO, I., red.; ZAKHAROVA, G., mlad. red.; SHIKIN, S., tekhn. red.

[Lenin's agrarian program and how it has been carried out in the U.S.S.R.]Leninskaia agrarnaia programma i ee osushchestvlenie v SSSR. Moskva, Izd-vo sotsial'no-ekon. lit-ry, 1961. 554 p. (MIRA 14:9)

(Agricultural policy)

VORONOVICH, B.A. (Moskva)

Natural and artificial surroundings. Priroda 52 no.3:40-45 '63. (MIRA 16:4)

(Science)

VORONOVICH, D. Ya

"Establishment of Effective Methods of Pinching a Grapevein During the Multibranch Formation of the Cluster." Cand Agr Sci, Georgian Agricultural Inst, 12 Oct 54. (ZV, 23 Sep 54)

SO: Sum 432, 29 Mar 55

VORONOVICH, I.R.

Problem of the morphology of false joints. Zdrav. Belor. 5 no.9: 33-37 S '59. (MIRA 12:12)

1. Iz Nauchno-issledovatel'skogo instituta travmatologii i ortopedii Ministerstva zdravookhraneniya BSSR (direktor - prof. R.M. Minina, nauchnyy rukovoditel' - prof. B.N. TSypkin).
(PSEUDOARTHROSIS)

VORONOVICH, I. R., Cand Med Sci -- (diss) "Problems in the morphology and treatment of pseudo-joints." Minsk, 1959. 19 pp; (Minsk State Medical Inst); 200 copies; price not given; (KL, 17-60, 168)

BUDYAK, N.F.; VORONOVICH, S.A.; KRUPENYA, S.I.

Neutral tar lubricant from the power-engineering refinement of lignite. Khim. i tekh. topl i masel 9 no.8:37-41 Ag '64. (MIRA 17:10)

1. Podmoskovnyy nauchno-issledovatel'skiy i proyektno-konstruktorskiy ugol'nyy institut.

SERGIYEVSKIY, V.S., VORONOVA, N.V.

Experimental myocardial infarct and its excision. Report No.2 [with summary in English]. Eksper.khir. 3 no.5:29-34 S-O '58 (MIRA 11:11)

1. Iz Il'inskoy rayonnoy bol'nitsy (glavnyy vrach A.I. Ivanov) Velikolukskoy oblasti.
(MYOCARDIAL INFARCT. exper.
excis. in animals (Rus))

1. VORONOV, P., Eng.

2. USSR (600)

4. Milling Machines

7. Adjustment and regulation of machine tools for grinding crank shafts. MTS 13, No. 4, 1953.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

1. VORONOV, P.

2. USSR (600)

4. Grinding and Polishing

7. Adjustment and regulation of machine tools for grinding crank shafts, MTS 13 no. 4, 1953.

9. Monthly List of Russian Accessions, Library of Congress, APRIL 1953. Unclassified.

VORONOV, P.

Ensilage

Digging silage trenches by tractor power. Eng. MTS 12 No. 8, 1952.

Monthly List of Russian Accessions, Library of Congress November 1952. UNCLASSIFIED

VORONOV, P., Eng.

Tractors

Digging silage trenches by tractor power. MTS 12 no. 8, 1952

Monthly List of Russian Accessions, Library of Congress, November 1952. UNCLASSIFIED.

VORONOV, P.

Drilling and Boring Machinery

Universal machine for boring bearings, MTS 11, No. 12, 1951.

Monthly List of Russian Accessions, Library of Congress, May 1952, Unclassified.

VORONOV, P., Eng.

Automobiles - Motors

Checking the bearing surface for crank bearing bushings in the blocks of automobile and tractor engines. MTS 13, No. 3, 1953.

9. Monthly List of Russian Accessions, Library of Congress, June 1953, Uncl.

VORONOV, P., Eng.

Tractors - Motors

Repair of engine-block heads. MTS 13, No. 2, 1953.

Monthly List of Russian Accessions, Library of Congress
June 1953. UNCL.

VORONOV, P., Eng.

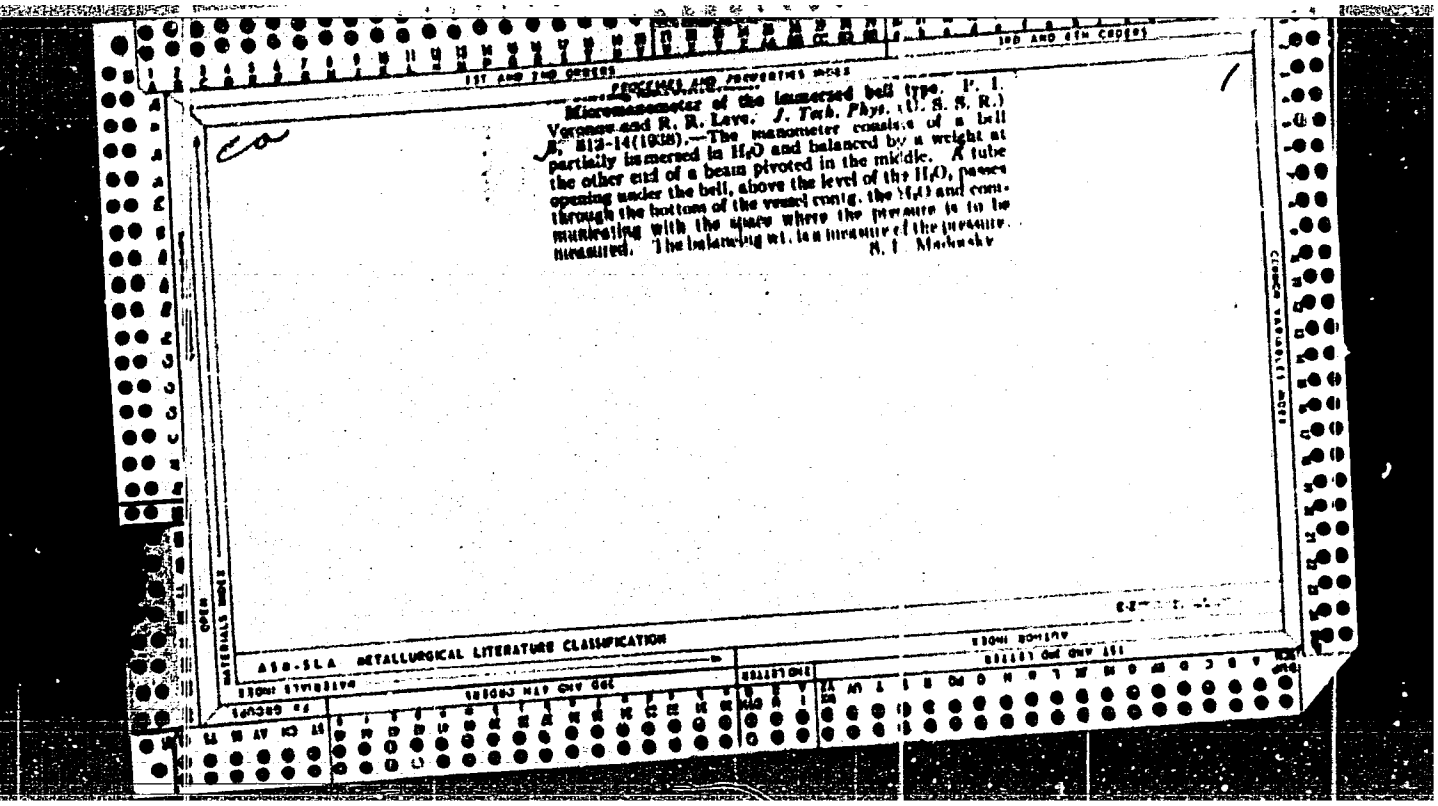
Tractors - Motors

Checking the bearing surface for crank bearing bushings in the blocks of automobile and tractor engines. MTS 13, No. 3, 1953.

Monthly List of Russian Accessions, Library of Congress
June 1953. UNCL.

IZHUNKOVSKIY, N.N., professor, doktor tekhnicheskikh nauk; BLIZNYAK, Ye.V., professor; GUBIN, F.F., professor; ABRAMOV,N.N. professor ROZANOV, N.P., VORONOV, P.A., BORODIN, P.V., POSUDOV, M.A. YURKEVICH,D.P., PERSON, M.M., tekhnicheskiy redaktor.

[Introduction to hydraulic engineering] Vvedenie v gidrotekhniku. Moskva, Gos.izd-vo lit-ry po stroit. i arkhit. 1955. 301 p. (Hydraulic engineering) (MLRA 8;8)



Micromanometer of the immersed bell type. P. I. Vermaas and R. R. Love. *J. Tech. Phys.* (U. S. S. R.) 8, 813-14(1938).—The manometer consists of a bell partially immersed in H_2O and balanced by a weight at the other end of a beam pivoted in the middle. A tube opening under the bell, above the level of the H_2O, passes through the bottom of the vessel containing the H_2O and communicating with the space where the pressure is to be measured. The balancing wt. is a measure of the pressure. N. I. Markushev

USSR/Forestry - Forest Biology and Typology.

Abs Jour : Ref Zhur - Biol., No 5, 1958, 20106

Author : Voronova, V.S.

Inst :

Title : The Effect of a Change in the Plant Blanket on the Natural Renewal of Forest Clearings.

Orig Pub : Tr. Karel'sk. fil. AN SSSR, 1957, vyp. 7, 110-126.

Abstract : Experiments made in the Petrozavodsk Forest Grounds by the Forestry Division of the Karelian affiliate of the Academy of Sciences USSR in 1952-1954 have demonstrated that grasses (Calamagrostis wood grasses and crinkled hair-grass) which take an insignificant part in the grass stand by the second to third year assume a dominant position in glades of all habitats with the exception of those which are excessively moistened. The predominance of grasses is maintained in even older clearings. The amount and nature of conifers renewed after felling is determined to a

Card 1/2

VORONOVA, V.S.

History of the study of forest vegetation in Karelia. Izv. Kar. i Kol'. fil. AN SSSR no.2:135-140 '58. (MIRA 11:9)

1.Institut lesa Karel'skogo filiala AN SSSR.
(Karelia--Forestry research)

VORONOVA-SHABANOVA, M. S., Doc Med Sci (diss) -- "Treating children suffering from tuberculous meningitis (Clinical-experimental investigation)". Moscow, 1959. 22 pp (Min Health RSFSR, Saratov State Med Inst), 300 copies (KL, No 24, 1959, 147)

KARABASH, A.G.; PEYZULAYEV, Sh.I.; SLYUSAREVA, R.L.; SOTNIKOVA, N.P.; SMIRNOVA-AVERINA, N.I.; SAMSONOVA, Z.N.; KRAUZ, L.S.; MOROZOVA, G.G.; ROMANOVICH, L.S.; SMIRENKINA, I.I.; LIPATOVA, V.M.; SALAHOVA, S.K.; PUGACHEVA, L.I.; USACHEVA, V.P.; VORONOVA, Ya.F.; GORBACHEV, P.D.; KOSTAREVA, F.A.; KOSTEREVA, N.T.; YELOVATSKAYA, A.I.; KUZNETSOVA, N.N.

Spectrochemical analysis of pure metals for impurities. Fiz. sbor. no.4:556-562 '58. (MIRA 12:5)
(Spectrochemistry)

22(1) SOV/3-59-3-16/48

AUTHORS: Abramov, P.N. and Voronovich, A.A., Candidates of Historical Sciences, Docents

TITLE: We Continue the Discussion on Seminar Methods (Prodolzhayem razgovor o metodike seminara)

PERIODICAL: Vestnik vysshey shkoly, 1959, Nr 3, pp 31-34 (USSR)

ABSTRACT: The authors describe a seminar conducted by the Chair for the History of the CPSU of the Moscow Aeronautical Institute. Its theme was "The 3rd Party Congress and V.I. Lenin's Book 'Two Tactics of Social-Democracy in the Democratic Revolution'". They comment in detail on the procedure, the way the seminar was prepared, and draw certain conclusions. The joint presence of the Chair members at the seminar, and the subsequent exchange of opinions, has polished the instructors' points of view and has helped them to formulate more precisely methodological principles. The authors consider that the success of a seminar does not depend solely on the pedagogical and methodical skill

Card 1/2

We Continue the Discussion on Seminar Methods

of the instructor, but also on his scientific qualification. It is very important that the instructor bring forth material from his own scientific work. The authors emphasize the necessity of a close, organic contact between lectures and seminars.

ASSOCIATION: Moskovskiy aviatsionnyy institut imeni S. Ordzhonikidze (Moscow Aeronautical Institute imeni S. Ordzhonikidze)

VORONOVICH, I.I.

Bubnov-Galerkin method in the non linear theory of vibrations of slightly raked shells. Dokl. AN SSSR 110 no.5:723-726 O '56. (MLRA 10:1)

1.Rostovskiy gosudarstvennyy universitet imeni V.M. Molotova. Predstavleno akademikom S.L. Sobolevym.

(Functional equations) (Elastic plates and shells)

VORONOVICH, I. V. and Gorlenko M. V.

Phytopathic Bacteria and Insect Vectors, (from Bibliography of Soviet Publications in Plant Pathology and Closely Related Fields)

Uspekhi Sovremnoy Biologiya, pp 458-463

VORONOVICH, N.

[All-seeing eye; from life in the Russian Army] Vsevidiashchee oko; iz byta russkoi armii. Niu Iork, 1951. 75 p. (MLRA 8:3)
(Russia--Army--History)

VORONOVICH, N.D., veterinarnyy vrach (Miorskiy rayon, Polotskoy oblasti)

An avens therapy for babesiasis in cattle. Veterinariia 30 no.6: 34-35 Je '53. (MLRA 6:5)

VORONOVICH, N. D.

VORONOVICH, N. D.

Utilization of Riparian (littoral) Avens for Treatment of Babesiasis in Cattle.

SO: Vet.; Vol. 30; No. 6; 34; June 1953, Unclassified.
Trans. #121 by L. Lulich
Veterinarian, Miorskiy Rayon, Polotsk Oblast.

PLOTKIN, B.P.; VORONOVICH, N.F.

Significanc of hydrotubage in the diagnosis and treatment of female sterility. Zdrav. Bel. 9 no.7:15-17 Jl'63 (MIRA 17:4)

1. Iz Pinskogo gorodskogo rodil'nogo doma (glavnyy vrach rodil'nogo doma - zasluzhennyy vrach Belorusskoy respubliki V.M. Vorozheykina).

VORONOVICH, N.I.

KUSOV, A.B.; VORONOVICH, N.I.

Hysteresis characteristics of rubber. Kauch. i rez. 17 no.2:18-22 F '58. (MIRA 11:4)

1.Leningradskiy tekhnologicheskiy institut im. Lensoveta.
(Hysteresis) (Rubber--Testing)

SOV/124-58-8-9421

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 8, p 145 (USSR)

AUTHORS: Kusov, A.B., Voronovich, N.I.

TITLE: The Effect of Swelling of Rubber on its Physical and Mechanical Properties (Vliyaniye nabukhaniya na fiziko-mekhanicheskiye pokazateli reziny)

PERIODICAL: Tr. Leningr. tekhnol. in-ta im. Lensoveta, 1957, Nr 42, pp 47-54

ABSTRACT: The authors have made a study of the effect had on the behavior of the stress-elongation curves of different types of rubber by the various degrees of swelling (up to 70-80%) which the specimens that they examined had undergone. The curves for the swollen specimens behaved in general very much the same as did those for the specimens that had not swollen, though the modulus of extensibility and rupture strength of the swollen specimens were lower.

From the résumé

Card 1/1

VICH, N. I.

AUTHORS: Kusov, A. B. and Voronovich, N. I.

TITLE: Some Characteristics of the Hysteresis of Rubbers. (Nekotoryye osobennosti gisterezisa rezin.).

PERIODICAL: Kauchuk i Rezina, 1958, Nr.2. pp. 18 - 22.

ABSTRACT: The hysteresis of rubbers, structure changes of rubbers during expansion-deformation and properties of various rubbers were investigated. Natural rubber, Na-butadiene, chloroprene, nitrile, 1,3-butadiene-styrene and butyl rubber vulcanisates, with and without the addition of various fillers, were tested. The mixtures were vulcanised for a period of 10 - 120 minutes. The rate of expansion (or contraction) of the samples was 100 mm/minute; the elongations = 200 - 900%. Characteristic curves for various degrees of expansion of the samples are shown in Fig.1. During elongation of the molecular bonds are straightened at the expense of the non-chemical bonds. The molecular phenomenon is observed during contraction. The breaking-up process of the bonds is envisaged as a continuous mechanism of expansion can be between the macro-molecules of admixtures, and between the rubber and the particles of the rubber, the degree of disruption of the bonds increases with increasing deformation. The degree of purity of the mixture and increasing deformation. G. M. Bartenev and L. A. Vishnitskaya investigated the properties of rubbers

62B-2-4/8

Card 1/3

which crystallised during elongation and gave a number of equilibrium constants of contraction (Fig2, curves 1 - 9). The authors found that these curves could be superposed and represented by curve 10. They concluded that all rubbers, independent of their structure, contract equally. The various numerical values of elongation are explained by the fact that each sample is subjected to internal stresses and corresponding deformation. After defining the hysteresis losses for various rubbers the authors also found that the hysteresis losses of crystallising rubbers (natural chloroprene and butyl rubber) differs to a large extent from the values for non-crystallising rubbers (sodium-1,3-butadiene, 1,3-butadiene-styrene and nitrile rubber). Typical curves for crystallising (Fig.3A) and non-crystallising rubbers (Fig.3B) are given. The ratio of the hysteresis losses and elongation of various rubber is shown graphically (Fig.4). The maximum value of the break strength was found to be 250 - 460 kg/cm^2 which corresponds to an elongation of 1200 - 1500%, depending on the type of tested rubber. It can be assumed that the structure

Some Characteristics of the Hysteresis of Rubbers. 62B-2-4/8

changes of the rubbers lead to an increasing degree of rupture of the inter-molecular adsorption and other bonds. The process of internal destruction or rupture of the bonds can proceed at increasing load as well as at constant load; the larger the load the shorter the time required for the breaking-up of the vulcanisate. These results are similar to those obtained by S. N. Zhurkov and B. N. Narzullayev on the time dependence of the strengths of solid bodies. There are 4 Figures and 5 References: 3 Russian, 2 English.

ASSOCIATION: Leningrad Technological Institute im. Lensoviet. (Leningradskiy tekhnologicheskiy institut im. Lensoveta).

AVAILABLE. Library of Congress.

Card 3/3 1. Vulcanizates-Test results 2. Synthetic rubber-Thermodynamic properties 3. Synthetic rubber-properties 4. Rubber-Test results 5. Rubber-Properties 6. Rubber-Thermodynamic properties

BUDYAK, N.F. (Novomoskovsk); Prinimala uchastiya: VORONOVICH, S.A.

Instability of tars resulting from the high-speed thermal decomposition of solid fuels. Izv. AN SSSR. Otd. tekh. nauk. Energ. i transp. no.3:386-389 My-Je '63. (MIRA 16:8)

VORONOVICH, Ye.

Potentialities can be found everywhere. Grazhd. av. 21 no.6:26 Je '64. (MIRA 17:8)

1. Nachal'nik planovogo otdela Upravleniya aviatsii spetsial'nogo primeneniya i vozdushnykh sredstv Grazhdanskogo vozdushnogo flota.

VORONOVITSKIY, I.N.

STROYEV, V.S., inzhener; VORONOVITSKIY, I.N.

Effect of metallurgical factors on the structure and mechanical properties of type 18-8 metal in built-up welding. Svar. proizv. no.11:15-19 N '56. (MLRA 10:9)

1. Opytno-svarochnyy zavod TSentral'nogo nauchno-issledovatel'skogo instituta Ministerstva putey soobshcheniya.
(Steel, Stainless--Metallography)
(Electric welding)

VORONOVICH, I.R.

Treatment of false joints. Zdrav. Belor. 5 no.11:26-30 N '59. (MIRA 13:3)

1. Nauchno-issledovatel'skiy institut travmatologii i ortopedii (direktor - prof. R.M. Minina, na uchnyy rukovoditel' - prof. B.N. TSypkin).

(PSEUDARTHROSIS)

VORONKOVSKAYA, O.N., kand.med.nauk

Changes in the heart valves and myocarditm in long-term septic endocarditis and rheumatic fever. Vrach.delo no.10:1097 O '59. (MIRA 13:2)

1. Kafedra patologicheskoy anatomii (zaveduyushchiy - prof. A.M. Antonov) Saratovskogo meditsinskogo instituta.
(ENDOCARDITIS) (RHEUMATIC FEVER)

GORDIYEVSKIY, A.V.; RENARD, E.V.; VORONOVSKAYA, M.N.

Synthesis of an electron-exchange polymer. Plast.massy no.3:20-23 '61. (MIRA 14:3)

(Polymers) (Ion exchange)

20486

5.5700 2209, 1273, 1208
26.1610

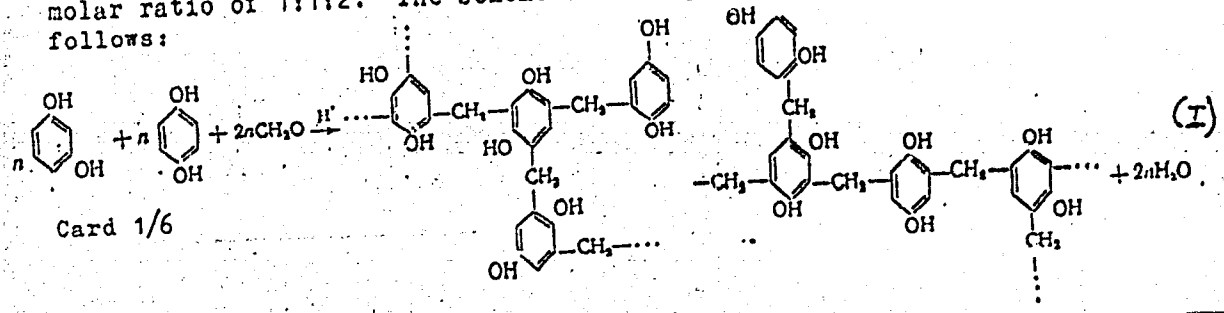
S/191/61/000/003/004/015
B124/B203

AUTHORS: Gordiyevskiy, A. V., Renard, E. V., Voronovskaya, M. N.

TITLE: Synthesis of an electron-exchanging polymer

PERIODICAL: Plasticheskiye massy, no. 3, 1961, 20-23

TEXT: It has been attempted during the last ten years to synthesize "electron exchangers", i.e., exchanging resins entering redox reactions and permitting sorption at the same time, the selectivity of processes being guaranteed by the constant redox potential of the polymer. The authors defined the production methods and studied the physicochemical properties of the resorcin hydroquinone formaldehyde polycondensate with a molar ratio of 1:1:2. The scheme of this process can be represented as follows:



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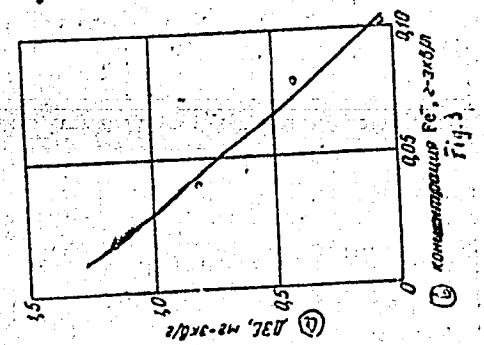
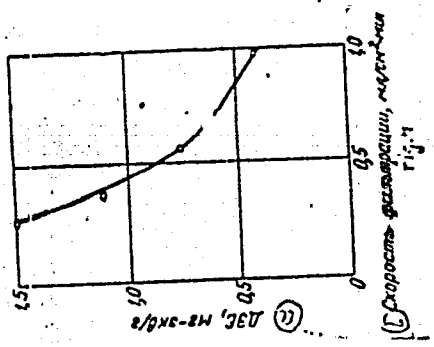
Card 1/6

S/191/61/000/003/004/015
B124/B203

Synthesis of an electron-...





The following data are given for the chemical stability of the electron-exchanging polymer to a number of agents:

Solvent	Loss in weight, %	Solvent	Loss in weight, %
methanol	20.45	nitric acid, 3.5N	4.2
ethanol	17.4	hydrochloric acid 3.5 N	0.2
acetone	19.7	sulfuric acid, 6.0 N	1.5
benzene	2.5	soda lye, 2.5 N	6.1
hydrogenated kerosene	2.0		

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Synthesis of an electron-....

After repeated treatment with the same solvent, no change in weight occurs after the first treatment, since the change in weight is mainly due to the dissolution of the low-molecular components; besides, the redox capacity increases due to increased porosity after the treatment. Therefore, polymers were treated with 1.5 N HNO_3 and methanol in further tests. The apparent redox potential of the polymer was potentiometrically determined with + 0.68 v. The principal physicochemical properties determined according to Ref. 23 (I. E. Apel'tsin et al.: Ionity i ikh primeneniye (Ionites and their application), Standartgiz, 1949) are: heat resistance 150°C, crushing 93.2%, abrasion 102.7%, bulk weight of the air-dry polymer 0.686 t/m^2, bulk weight of the moist polymer 0.588 t/m^2, swelling 11.66%. In reduction of iron, the electron-exchanging capacity after 7 cycles drops from 4.4 to 3.6 mg-equiv/g. The authors studied the effect of Fe^{3+}-ion concentrations, H-ion concentration, and filtration rate on the dynamic electron-exchanging capacity (DEC) (Figs. 2-4). For the concentration constant of the redox reaction, they derived the relation $K=e^{\Delta E^0 \cdot nF/RT}$, where ΔE^0 is the difference between the standard redox potentials of the

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Synthesis of an electron-...

systems Fe^{+3}/Fe^{+2} and the potentials resin-ox/resin-red (0.77 - 0.68 v), n is the number of electrons participating in the reaction (n=2), and F is the Faraday number. After introduction of the numerical data, K is found to be $10^{3.12}$. There are 4 figures and 23 references: 9 Soviet-bloc and 14 non-Soviet-bloc. The reference to the English-language publication reads as follows: H. J. Gregor, J.Am.Chem.Soc. 77, 3675 (1955).

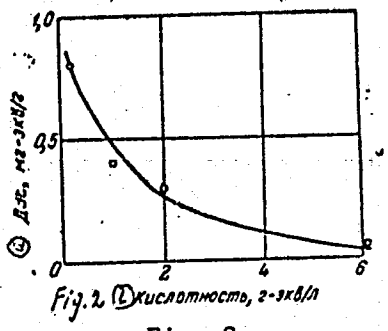

Fig. 2. Dependence of the dynamic electron-exchanging capacity (DEC) of the polymer on the acidity of the solution (Fe-content 0.04 g-equiv/l, filtration rate 0.43 ml/cm^2·min)

Legend: (a) DEC, mg-equiv/g, (b) acidity, g-equiv/l.

Fig. 2

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Synthesis of an electron-...

Fig. 3. Dependence of the dynamic electron-exchanging capacity (DEC) of the polymer on the concentration of the reduced Fe ion (H_2SO_4 acidity 0.2 N, filtration rate 0.43 ml/cm^3.min).

Legend: (a) DEC, mg-equiv/g, (b) concentration of Fe^{+++}, g-equiv/l.

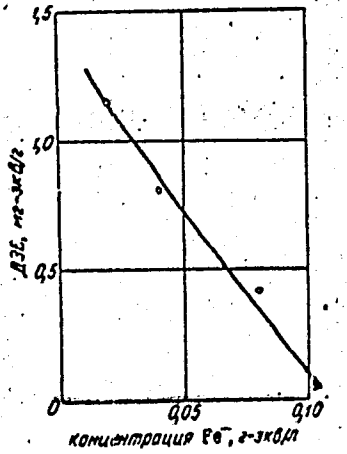

Fig. 3

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Synthesis of an electron-...

Fig. 4. Dependence of the dynamic electron-exchanging capacity (DEC) of the polymer on the filtration rate of the reduced solution (H_2SO_4 acidity 0.2 N, Fe-content 0.04 g-equiv/l)

Legend: (a) DEC, mg-equiv/g, (b) filtration rate, ml/cm^2·min.

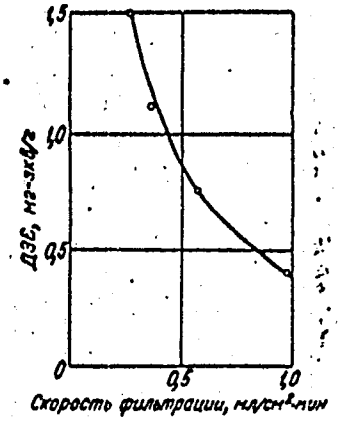


Fig. 4

Card 6/6

VORONOVSKAYA, YE. V

Opredeleniye asimptoticheskogo vida priblizheniya funktsiy polinomami S.N. bernshteyna. DAN (a), (1932), 79-85.

So: Mathematics in the USSR, 1917-1947
edited by Kurosh, A.G.,
Markushevich, A.I.,
Rashevshily, P.K.
Moscow-Leningrad, 1948

VORONOVSKAYA, E.V.

USSR/Mathematics

Card 1/1 Pub. 22 - 1/47

Author : Voronovskaya, E. V.

Title : Application of the functional analysis to polynomials with the least deviation

Periodical : Dok. AN SSSR 99/1, 5-8, Nov 1, 1954

Abstract : A series of theorems is presented. They are intended to prove that the functional $F(f) = \int_0^1 f(t)dg(t)$ determined by a sequence of momenta $\mu_k = \int_0^1 t^k dg(t)$ $(k = 0, 1, 2, \ldots)$ can be used for finding the so-called "extermal" polynomials, which are expressed by "extremal" functions. The definition of an "extremal" function is given. Three USSR references (1893-1941).

Institution : Leningrad Electrotechnical Institute im. M. A. Bon-Bruevich

Presented by: Academician V. I. Smirnovym, Aug 16, 1954

VORONOVSKAYA, E. V.

USSR / Mathematics - Extremal polynomials

Card 1/1 : Pub. 22 - 2/40

Authors : Voronovskaya, E. V.

Title : "Extremal" polynomials of the simplest functionals

Periodical : Dok. An SSSR 99/2, 193-196, Nov 11, 1954

Abstract : Applications of the method "extremal" functions (described in Dok. AN SSSR 99/1) for studying the least deviating polynomials of the simplest functionals are presented. A series of theorems is proved showing how one can study and construct an extremal polynomial with the help of the simplest functionals of the [n,n,1] class. Definition of an extremal function is given in the previous work mentioned above. Three USSR references (1928-1954).

Institution : Leningrad Electrotechnical Institute im. M. A. Bonch-Bruevich

Presented by: Academician V. I. Smirnov, June 7, 1954

VORONOVSKAYA, YE. V.

FD-1445

USSR/Mathematics - Differential equations

Card 1/1 : Pub. 85 - 14/15

Author : Voronovskaya, Ye. V. (Leningrad)

Title : Variation of Chaplygin's method for differential equations of the first order

Periodical : Prikl. mat. i mekh. 19, No 1, 121-126, Jan-Feb 1955

Abstract : The author notes that Chaplygin's method of approximate integration (S. A. Chaplygin, Novyy metod priblizhennogo integrirovaniya differentsial'nykh uravneniy, 1950) for all its great theoretical value is but little used in practice even for equations of the first order. The method is of interest first of all for the exceptional rapidity of convergence of the approximations $y_n(x)$ to the desired integral $y(x)$; however, the computations are so tremendous and become so rapidly complicated in the iteration process that in practice the representation of the integral in analytic form is difficult even for n=2. In the present note the author selects the linear surface such that the rapidity of convergence increases and the final quadrature is simplified. Two references (e.g. N. N. Luzin, 1932).

Institution : --

Submitted : August 4, 1954

VORONOVSKAYA, YE. V.

VORONOVSKAYA, Ye. V. - "Extremal Polynomials of Finite Functionals." Leningrad Order of Lenin State U imeni A. A. Zhdanov, Leningrad, 1955
(Dissertation for the Degree of Doctor of Physicomathematical Sciences)

SO: Knizhnaya letopis', No. 33, 1955, pp 85-87

VORONOVSKAYA, Ye.V.

Functional method applied to akhiezer polynomials. Dokl.AN SSSR 110 no.5:727-730 O '56. (MLRA 10:1)

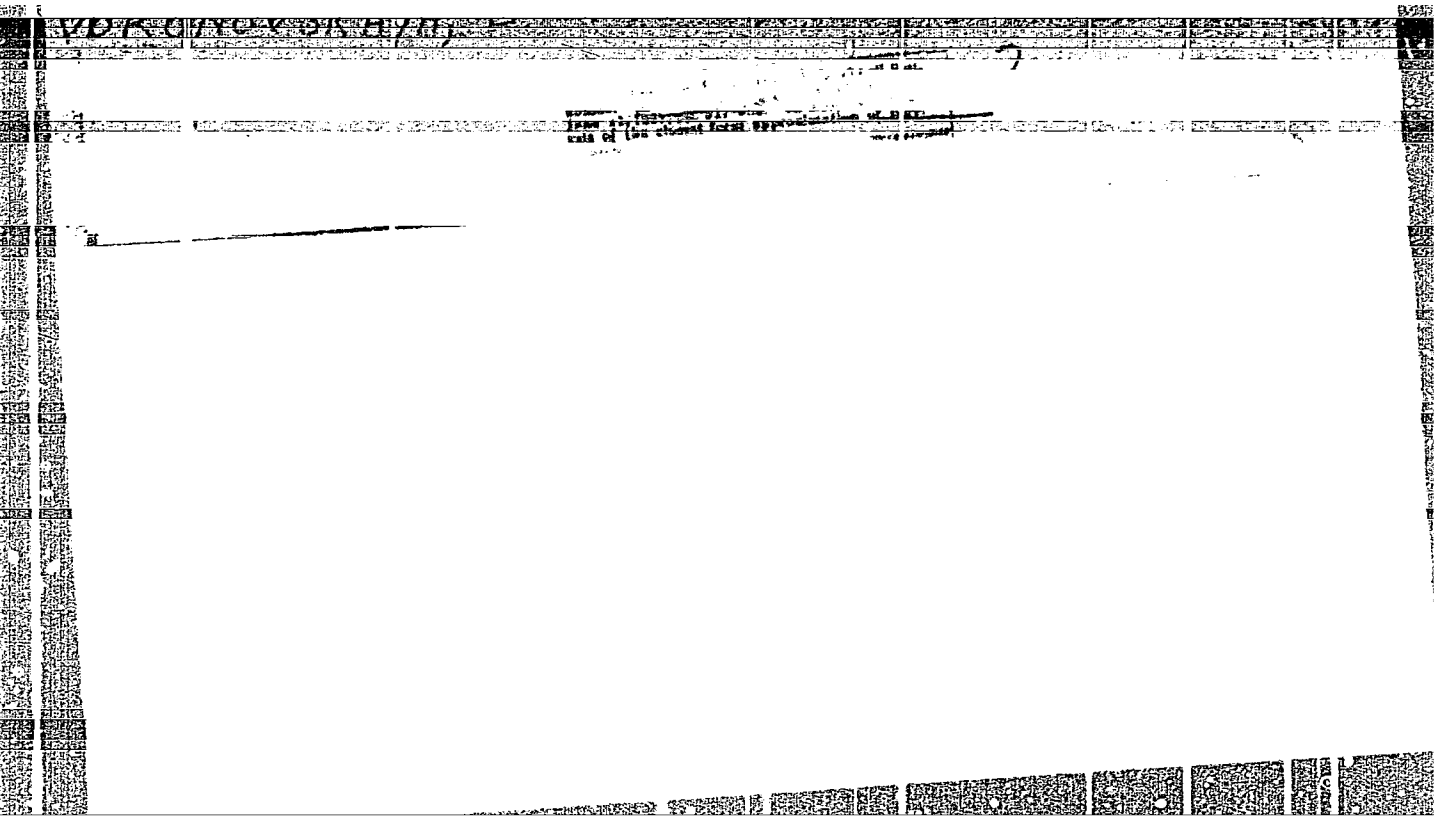
1. Leningradskiy institut aviatsionnogo priborostroyeniya. Predstavleno akademikom V.I. Smyrnovym.
(Polynomials) (Functional equations)

VORONOVSKAYA, Ye. V.

"The Functional Method Applied to Akhiyezer Polynomials," by Ye. V. Voronovskaya, Leningrad Institute of Aviation Instrument Building, Doklady Akademii Nauk SSSR, Vol 110, No 5, 1956, pp 727-730

Using a previously derived method (Ye. V. Voronovskaya, "Experimental Polynomials of Finite Functionals," Dissertation, Leningrad, 1955), the suthor investigates polynomials of the passport [n, n - 1, 0], and identifies them with the class of polynomials obtained by N. I. Akhiyezer in one of his experimental problems (Izvestiya Fiziko-Matematicheskogo Obshchestva pri Kazanskom Universitete, Series 3, 3, 1928). The author's method results in the derivation of a system of differential equations, the integrals of which are the coefficients of the previously cited polynomials depending on two variable parameters.

Sum 1274



APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001861010001-3"

VORONOVSKAYA, E.V.

20-5-3/60

AUTHOR VORONOVSKAYA, E.V.

TITLE On the Closest Uniform Approximation of Polynomials - (O ravnomerno-nailuchshem priblizhenii polinomov - Russian)

PERIODICAL Doklady Akad.Nauk SSSR,1957,Vol 114, Nr 5, pp 927 - 929 (U.S.S.R.)

ABSTRACT The present paper investigates a special case of Chebyshev's theorems of the best approximation of a function which is steady in $[0,1]$ by means of polynomials with assumed power. Let it be assumed that $f(x) = P_n(x)$; with $m<n$ a $P_m(x)$ is searched for, for which $\max_{[0,1]} |P_n(x)-P_m(x)|$ has the lowest value L. If one puts $P_n(x)- P_m(x) = Y_n(x)$ the following formulation of the problem is obtained: Among the polynomials of the power n with the assumed n-m highest coefficients that which deviates least in $[0,1]$ from zero is to be found. Also the deviation L itself is required. This problem can be completely solved if $Q_n(x)$ is a polynomial of the II.class,i.e. if the number of its nodes $s>n/2+1$ amounts to about $\max_{[0,1]} |Q_n| = 1$. For this the condition $m+2>n/2+1$ is sufficient. It is thus true that $m>n<2m+2$. The characteristic properties of the polynomials of the II.class are then given. The existence of polynomials with any "pass" (i.e.with any power,any number of nodes,and any number of repetitions of the sign of the polynomial on the interval limits) is obtained by means of quite simple linear functionals. For these polynomials 6 theorems are given. From one of them there follows a method for the analytical construction of the polynomials of II. class as integrals of a system of ordinary differen-

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On the Closest Uniform Approximation of Polynomials.

tial equations.
(No illustrations).

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Use of ion exchange membranes in the calcium form as indicator electrodes. Trudy MKHTI no.47:184-188 '64.

Formation of protective films on the surface of cast iron. Ibid.:189-192

Sand fused on iron castings and role of cast iron silicon in its formation. Ibid.:193-197 (MIRA 18:9)